

least one processor **410**, at least one memory **420** including computer program code, and the at least one processor, with the at least one memory and the computer program code, being arranged to cause the apparatus to at least perform at least one of the methods according to FIGS. 7, 9, 11, and 13.

[0202] The number of network functionalities in a dependency chain is not limited but may be any number equal to or larger than 2.

[0203] If the present application refers to a session chain, it is to be considered as an example of a dependency chain. The same mechanisms may apply to other transactions than establishing a session.

[0204] Embodiments of the invention may be employed in an LTE network. They may be employed also in other mobile communication networks such as CDMA, EDGE, UTRAN, LTE-A, WiFi networks, etc., and also in fixed communication networks such as ATM networks, LAN, WAN, etc.

[0205] A terminal may be a user equipment such as a mobile phone, a smart phone, a PDA, a laptop, a tablet PC, or any other device which may be connected to the respective mobile network.

[0206] One piece of information may be transmitted in one or plural messages from one entity to another entity. Each of these messages may comprise further (different) pieces of information.

[0207] Names of network elements, protocols, and methods are based on current standards. In other versions or other technologies, the names of these network elements and/or protocols and/or methods may be different, as long as they provide a corresponding functionality.

[0208] Instead of the term “network element” or “network entity”, sometimes the term “network function” is used. These terms are considered to be synonymous unless otherwise stated. By the term “network function”, it is emphasized that the functionality of a network element may be provided purely based on SW without any dedicated underlying HW (such as in a case of network virtualization). However, the expression “network function” is not to be understood as restricted to a purely SW based implementation, and the expressions “network element” or “network entity” are not to be understood as restricted to having an underlying dedicated HW.

[0209] If not otherwise stated or otherwise made clear from the context, the statement that two entities are different means that they perform different functions. It does not necessarily mean that they are based on different hardware (if they are based on a hardware). That is, each of the entities described in the present description may be based on a different hardware, or some or all of the entities may be based on the same hardware. It does not necessarily mean that they are based on different software (if they are based on a software). That is, each of the entities described in the present description may be based on different software, or some or all of the entities may be based on the same software. It does not necessarily mean that they are based on different virtual machines (if they are based on a virtual machine). That is, each of the entities described in the present description may be based on different VMs, or some or all of the entities may be based on the same VM.

[0210] According to the above description, it should thus be apparent that exemplary embodiments of the present invention provide, for example a network element, e.g. a MME, A S-GW, a P-GW, a PCRF, a P-CSCF, or a compo-

nent thereof, an apparatus embodying the same, a method for controlling and/or operating the same, and computer program(s) controlling and/or operating the same as well as mediums carrying such computer program(s) and forming computer program product(s). According to the above description, it should thus be apparent that exemplary embodiments of the present invention provide, for example a control unit or a management entity, e.g. a NFVO, or a component thereof, an apparatus embodying the same, a method for controlling and/or operating the same, and computer program(s) controlling and/or operating the same as well as mediums carrying such computer program(s) and forming computer program product(s).

[0211] Implementations of any of the above described blocks, apparatuses, systems, techniques or methods include, as non limiting examples, implementations as hardware, software, firmware, special purpose circuits or logic, general purpose hardware or controller or other computing devices, or some combination thereof.

[0212] It is to be understood that what is described above is what is presently considered the preferred embodiments of the present invention. However, it should be noted that the description of the preferred embodiments is given by way of example only and that various modifications may be made without departing from the scope of the invention as defined by the appended claims.

1.-39. (canceled)

40. Apparatus, comprising:

first configuring means adapted to configure one or more instances of an initiating network function such that each time when a first initiating transaction is requested from any of the instances of the initiating network function the respective instance of the initiating network function requests a downstream transaction from an instance of a predefined group of one or more instances of a downstream network function, and

alternative configuring means adapted to configure the one or more instances of the initiating network function such that each time when a second initiating transaction different from the first initiating transaction is requested from any of the instances of the initiating network function the respective instance of the initiating network function requests the downstream transaction from an instance of the downstream network function not belonging to the predefined group.

41. The apparatus according to claim **40**, wherein the first initiating transaction is different from the second initiating transaction by at least one of an access point name, a subscription information, and a requested quality of service.

42. The apparatus according to claim **40**, wherein the predefined group of one or more instances of the downstream network function comprises only one instance.

43. The apparatus according to claim **42**, wherein the downstream network function is a policy and charging rules function.

44. The apparatus according to claim **40**, wherein the initiating network function resides on a different plane than the downstream network function.

45. Apparatus, comprising:

first selecting means adapted to select a predetermined group of instances of a downstream network function each time when a first initiating transaction is requested from the apparatus;